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TITLE: (6) Codeposition of chromium and other metals

SOURCE: (15) Elektroliticheskoye osazhdeniye splavov, Mosk. dom nauchno-tekhn. propagandy, ~~Moscow, Mashgiz~~, 1961, 198-215, ~~Moscow, Mashgiz~~.

TEXT: The electrodeposition of chromium alloys is relatively new. In the present work the operating conditions are discussed for the deposition of chromium-manganese, chromium-selenium, chromium-molybdenum, chromium-tungsten, chromium-rhenium, chromium-iron, tungsten-cobalt, tungsten-nickel, tungsten-iron, molybdenum-cobalt, molybdenum-nickel and molybdenum-iron alloys, as well as their influence on the properties of these alloys. It is believed that during the electrodeposition of chromium from chromic acid solutions a cathodic film is formed, with the result that no metals can be deposited on the cathode except those that form anions capable of existing in this film (such as  $\text{MnO}_4^-$ ,  $\text{SeO}_4^-$ ,  $\text{ReO}_4^-$  and  $\text{MoO}_4^-$ ). The possibility of depositing ternary alloys of Cr-Ni-Mo, Fe-W-Mo, Ni-W-Mo, Co-Ni-W, Fe-Co-W, Fe-Ni-W, Co-Ni-Mo, Fe-Co-Mo and Fe-Ni-Mo is indicated. There are 9 figures.

Card 1/1